HEIR 2013

Conference Program

Health Effects of Incorporated Radionuclides

Sunday, October 13, 2013 – Thursday, October 17, 2013
Berkeley, California USA

http://actinide.lbl.gov/HEIR2013

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Chemical Sciences Division

IRSN
INSTITUT DE RADIOPROTECTION ET DE SÛRETÉ NUCLÉAIRE

NCRP
National Council on Radiation Protection & Measurements

Welcome to HEIR 2013 in Berkeley, California

Dear Colleagues,

On behalf of the organizing committee, we are pleased to welcome you to the 11th International Conference on the Health Effects of Incorporated Radionuclides, which is held at the Claremont Hotel in Berkeley, California, USA, from Sunday, October 13 to Thursday, October 17, 2013. Continuing a series of outstanding previous meetings, this conference is a great opportunity to present and discuss topics related to the toxicity of radionuclides in man. A variety of fields (chemistry, microbiology, medicine, physiology, toxicology, radiation biology, etc.) are represented by experts from industry, government, and academia, to create an exciting multidisciplinary encounter.

The program of this eleventh edition of the HEIR Conference includes six invited presentations given by well-known speakers with the goal of describing the current state of research in understanding the health effects of incorporated radionuclides. Contributed oral presentations have been scheduled to fit within four main session themes: (i) Epidemiology, Biological Effects, and Dose Assessment; (ii) Biodosimetry, Molecular Biology, and Biochemistry; (iii) Biokinetics; and (iv) Medical Countermeasures and Decorporation. While posters will be exposed all week, we also encourage scientific discussions during the two scheduled poster-sessions. Poster prizes will be awarded during the banquet dinner on Wednesday, October 16, 2013.

Finally, the scientific program is combined with social events for attendees and accompanying persons, encouraging you to explore Berkeley and the San Francisco Bay Area.

We look forward to a successful and enjoyable meeting in Berkeley and thank you for your support of the HEIR 2013 Conference.

Rebecca Abergel, Marie-Thérèse Ménager, and Eric Ansoborlo
HEIR 2013 Organizers

Scientific Committee

Rebecca Abergel, Lawrence Berkeley National Laboratory, USA

Eric Ansoborlo, Commissariat à l'Énergie Atomique, France

Tamara Azizova, Southern Urals Biophysics Institute, Russia

Vladimir Berkovski, International Atomic Energy Agency, Austria

Luiz Bertelli, Los Alamos National Laboratory, USA

Polly Chang, SRI International, USA

Raymond Guilmette, Lovelace Respiratory Research Institute, USA

John Harrison, Health Protection Agency, UK

Nobuhito Ishigure, Nagoya University, Japan

Bert Maidment, National Institute of Allergy and Infectious Diseases, USA

Marie-Thérèse Ménager, Commissariat à l'Énergie Atomique, France

Uwe Oeh, Helmholtz Zentrum München, Germany

François Paquet, Institut de Radioprotection et de Sûreté Nucléaire, France

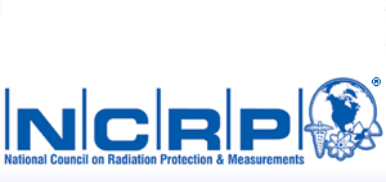
Nick Priest, Chalk River Laboratories, Canada

Kenneth Raymond, University of California at Berkeley, USA

Richard Wakeford, University of Manchester, UK

Sponsors and Partners

The HEIR 2013 Conference was made possible by the generous support of the following institutions:



General Information

Conference Venue

The venue for HEIR 2013 is the beautiful and historic Claremont Hotel in Berkeley, California, USA. The Claremont Hotel Club & Spa mixes a rich history with modern amenities, award-winning cuisine, live entertainment, a world class spa, a wide range of fitness programs, and stately accommodations, with unforgettable views of the San Francisco Bay. Less than one mile (a fifteen minute walk) from the conference venue is the Elmwood Shopping District, where you will find a special shopping experience featuring fine gourmet food, outdoor cafes, shops that feature unique clothing and jewelry, and quality, personal services from local merchants. Most stores are owner operated and have a friendly local feel, while providing the finest products and services near one of the most beautiful residential neighborhoods in the Bay Area.

Registration

The registration desk is located at the conference secretariat in the Napa room on the Mezzanine level of the Claremont Hotel. All participants are kindly asked to register upon arrival. The opening hours of the conference secretariat will be:

Sunday, October 13, 2013	4:00 p.m. – 6:30 p.m.
Monday, October 14, 2013	7:30 a.m. – 5:00 p.m.
Tuesday, October 15, 2013	7:30 a.m. – 12:30 p.m.
Wednesday, October 16, 2013	7:30 a.m. – 12:30 p.m.
Thursday, October 17, 2013	7:30 a.m. – 12:30 p.m.

Conference Badge

All registered participants will receive a conference ID badge together with the registration documents. The participants are kindly asked to wear their badges during the scientific sessions and the social events.

Language

The official language during the 11th International Conference on the Health Effects of Incorporated Radionuclides is English. There will be no simultaneous translation.

Internet Access

Wireless Internet will be available free of charge in the conference rooms during the entire duration of the conference. Information about access will be provided at the registration desk.

Plenary and Contributed Oral Presentations

Speakers are kindly asked to hand over their presentations to the technical staff no later than during the break preceding the start of their respective session.

Poster Sessions

All posters will be shown for the entire duration of the conference and presenting authors are encouraged to mount their poster as early as Sunday, October 13, 2013. Presenting authors are requested to be present by their poster during the two poster sessions scheduled at the following times:

Monday, October 14, 2013	4:00 p.m. – 5:00 p.m.
Tuesday, October 15, 2013	4:30 a.m. – 5:30 p.m.

Poster Awards

Two poster awards will be presented during the conference dinner on Wednesday, October 16, 2013.

Themed Issue in the International Journal of Radiation Biology

The International Journal of Radiation Biology will be publishing a themed issue from HEIR 2013. We welcome the submission of communications, papers, and reviews for consideration in the issue. All articles will be subject to the usual high standards of the journal through peer-review.

Manuscripts are limited to 5 journal pages.
While color figures may be included, associated costs will be charged to the authors.

Instructions for authors are available on the International Journal of Radiation Biology's website.
(http://informahealthcare.com/page/rab/Description#Instructions)

Submissions should be made online at the International Journal of Radiation Biology's ScholarOne Manuscripts site.
(http://mc.manuscriptcentral.com/ijrb)

During your submission, please specify that your manuscript should be considered for the HEIR 2013 Special Issue.

Agenda at a Glance

Sunday, October 13, 2013

4:00 p.m. – 6:30 p.m.	Registration / Conference Desk Open
5:30 p.m. – 7:00 p.m.	Introductory Remarks and Welcome Reception

Monday, October 14, 2013 - Epidemiology, Biological Effects, and Dose Assessment

7:30 a.m. – 5:00 p.m.	Registration / Conference Desk Open
8:00 a.m. – 8:50 a.m.	Plenary Session 1
8:50 a.m. – 10:05 a.m.	Session 1A
10:05 a.m. – 10:35 a.m.	Open Discussion / Refreshments Available
10:35 a.m. – 12:25 p.m.	Session 1B
12:25 p.m. – 1:55 p.m.	Open Discussion / Working Lunch Available
1:55 p.m. – 4:00 p.m.	Session 1C
3:35 p.m. – 4:00 p.m.	Open Discussion / Refreshments Available
4:00 p.m. – 5:00 p.m.	Poster Session 1

Tuesday, October 15, 2013 - Biodosimetry, Molecular Biology, and Biochemistry

7:30 a.m. – 12:30 p.m.	Registration / Conference Desk Open
8:00 a.m. – 8:50 a.m.	Plenary Session 2
8:50 a.m. – 10:05 a.m.	Session 2A
10:05 a.m. – 10:35 a.m.	Open Discussion / Refreshments Available
10:35 a.m. – 12:15 p.m.	Session 2B
12:15 p.m. – 1:45 p.m.	Open Discussion / Working Lunch Available
1:45 p.m. – 3:50 p.m.	Session 2C
3:50 p.m. – 4:30 p.m.	Open Discussion / Refreshments Available
4:30 p.m. – 5:30 p.m.	Poster Session 2

Wednesday, October 16, 2013 - Biokinetics

7:30 a.m. – 12:30 p.m.	Registration / Conference Desk Open
8:00 a.m. – 8:50 a.m.	Plenary Session 3
8:50 a.m. – 10:05 a.m.	Session 3A
10:05 a.m. – 10:35 a.m.	Open Discussion / Refreshments Available
10:35 a.m. – 12:30 p.m.	Session 3B
12:30 p.m. – 5:00 p.m.	Optional Lunch and Wine Tour
6:00 p.m. – 10:00 p.m.	Banquet Dinner / Poster Awards

Thursday, October 17, 2013 - Medical Countermeasures and Decorporation

7:30 a.m. – 12:30 p.m.	Conference Desk Open
8:00 a.m. – 8:50 a.m.	Plenary Session 4
8:50 a.m. – 10:05 a.m.	Session 4A
10:05 a.m. – 10:35 a.m.	Open Discussion / Refreshments Available
10:35 a.m. – 12:15 p.m.	Session 4B
12:15 p.m. – 1:45 p.m.	Open Discussion / Working Lunch Available
1:45 p.m. – 3:00 p.m.	Session 4C
3:00 p.m. – 3:30 p.m.	Open Discussion / Refreshments Available
3:30 p.m. – 4:30 p.m.	Closing Remarks

Sunday, October 13, 2013

4:00 p.m. – 6:30 p.m.	**Registration / Conference Desk Open**
5:30 p.m. – 7:00 p.m.	**Introductory Remarks and Welcome Reception**

Monday, October 14, 2013

Epidemiology, Biological Effects, and Dose Assessment

7:30 a.m. – 5:00 p.m. **Registration / Conference Desk Open**

8:00 a.m. – 8:50 a.m. **Plenary Session 1**

Dosimetry and health effects of radionuclides: The need for additional research.
François Paquet, *Institut de Radioprotection et de Sûreté Nucléaire, France*

8:50 a.m. – 10:05 a.m. **Session 1A**

8:50 **1A1 - Mortality (1950-1999) and Cancer Incidence (1969-1999) of Workers of the Port Hope Ra and U Refinery and Processing Facility.**
Lydia B. Zablotska, *University of California, San Francisco, USA*

9:15 **1A2 - Doses and lung cancer risks from exposure to radon and Pu.**
James W. Marsh, *Public Health England, UK*

Presentation Canceled

9:40 **1A3 - Bias in the proportionate mortality ratio analysis of small study populations: illustrated with a published study on radiation and mesothelioma.**
Joey Zhou, *Department of Energy, USA*

Conference Group Photo

10:05 a.m. – 10:35 a.m. **Open Discussion / Refreshments Available**

10:35 a.m. – 12:25 p.m. **Session 1B**

10:35 **1B1 - Are epidemiological studies of radiation related cardiovascular diseases (CD) in nuclear workers informative? Insights from nanotoxicology and exposure sciences.**
Irina G. Canu, *French Institute for Public Health Surveillance, France*

11:00 **1B2 - Mortality in cohort of German uranium processors and millers, 1946-2008.**
Michaela Kreuzer, *Federal Office for Radiation Protection, Germany*

11:15 **1B3 - Radon and mortality from respiratory diseases other than lung cancer in the WISMUT cohort of German uranium miners, 1946-2008.**
Michaela Kreuzer, *Federal Office for Radiation Protection, Germany*

11:35 **1B4 - Occupational exposure to uranium and health effects: does physico-chemical characterization matter?**
Sergey Zhivin, *Institut de Radioprotection et de Sûreté Nucléaire, France*

12:00 **1B5 - Chronic bronchitis incidence among Mayak nuclear workers.**
Tamara Azizova, *Southern Urals Biophysics Institute, Russia*

12:25 p.m. – 1:55 p.m. **Open Discussion / Working Lunch Available**

1:55 p.m. – 4:00 p.m.	**Session 1C**	
	1:55	**1C1 - Macrophages as key elements of mixed-oxide (U-Pu) distribution and pulmonary damage after inhalation?** Anne Van der Meeren, *Commissariat à l'Énergie Atomique, France*
	2:20	**1C2 - Detection of Sr-90 in the bone and cellular dosimetry using Penelope Monte carlo code.** Nora Hocine, *Institut de Radioprotection et de Sûreté Nucléaire, France*
	2:45	**1C3 - Reconstructing lifetime internal doses from urine data.** Richard K. Bull, *Nuvia Limited, UK*
	3:10	**1C4 - Assessments of worker doses and potential health effects resulting from the Fukushima accident.** George Etherington, *Public Health England, UK*
3:35 p.m. – 4:00 p.m.	**Open Discussion / Refreshments Available**	
4:00 p.m. – 5:00 p.m.	**Poster Session 1**	

Tuesday, October 15, 2013

Biodosimetry, Molecular Biology, and Biochemistry

7:30 a.m. – 12:30 p.m. **Registration / Conference Desk Open**

8:00 a.m. – 8:50 a.m. **Plenary Session 2**

Biochemical bases of selectivity in the protein-uranyl interaction.
Eric Quéméneur, *Commissariat à l'Énergie Atomique, France*

8:50 a.m. – 10:05 a.m. **Session 2A**

Presentation Canceled

8:50 **2A1 - Depleted uranium induced leukemia: epigenetic and genetic changes.**
Alexandra Miller, *Armed Forces Radiobiology Research Institute, USA*

9:15 **2A2 - Internal cesium exposure synergizes with external irradiation acutely and causes late injury to the hematopoietic stem cell compartment.**
Jacqueline Williams, *University of Rochester Medical Center, USA*

9:40 **2A3 - Molecular mechanisms of lung cancer carcinogenesis in nuclear workers.**
Natalia Vyazovskaya, *Southern Urals Biophysics Institute, Russia*

10:05 a.m. – 10:35 a.m. **Open Discussion / Refreshments Available**

10:35 a.m. – 12:15 p.m. **Session 2B**

10:35 **2B1 - Concerning ionizing radiation induced cancer from internally deposited radionuclides.**
Otto G. Raabe, *University of California at Davis, USA*

11:00 **2B2 - Chronic ingestion of Sr-90: biokinetics, dosimetry and effects on bone physiology.**
Jean Marc Bertho, *Institut de Radioprotection et de Sûreté Nucléaire, France*

11:25 **2B3 - Metabolomics, A new approach in low dose radiotoxicology research.**
Stéphane Grison, *Institut de Radioprotection et de Sûreté Nucléaire, France*

11:50 **2B4 - Natural uranium ores host iron-reducing and iron-oxidizing bacteria as demonstrated by high throughput sequencing and cultural approaches.**
Virginie Chapon, *Commissariat à l'Énergie Atomique, France*

12:15 p.m. – 1:45 p.m. **Open Discussion / Working Lunch Available**

1:45 p.m. – 3:50 p.m.	**Session 2C**	
	1:45	**2C1 - Rational design of peptide scaffolds with nanomolar affinity for uranyl.** Pascale Delangle, *Commissariat à l'Énergie Atomique, France*
	2:10	**2C2 - The role of actinides in nucleotide bioinorganic chemistry.** Christophe Den Auwer, *Université Nice Sophia Antipolis, France*
	2:35	**2C3 - Receptor recognition of transferrin bound to *f*-block metals: a differentiation step in cellular acquisition of actinides.** Manuel Sturzbecher-Hoehne, *Lawrence Berkeley National Laboratory, USA*
	3:00	**2C4 - Interaction between uranium and bone mimics: a contribution of synthetic chemistry.** Damien Bourgeois, *Marcoule Institute for Separation Chemistry, France*
	3:25	**2C5 - Bone accumulation of uranium: a construction puzzle.** Claude Vidaud, *Commissariat à l'Énergie Atomique, France*
3:50 p.m. – 4:30 p.m.	**Open Discussion / Refreshments Available**	
4:30 p.m. – 5:30 p.m.	**Poster Session 2**	

Wednesday, October 16, 2013

Biokinetics

7:30 a.m. – 12:30 p.m. **Registration / Conference Desk Open**

8:00 a.m. – 8:50 a.m. **Plenary Session 3**

Principles and practices of decorporation therapy for incorporated radionuclides.
Raymond A. Guilmette, *Lovelace Respiratory Research Institute, USA*

8:50 a.m. – 10:05 a.m. **Session 3A**

8:50 **3A1 - Physico-chemical characteristics of uranium compounds: a review.**
Estelle Davesne, *Institut de Radioprotection et de Sûreté Nucléaire, France*

9:15 **3A2 - USTUR case study on accidental exposure to uranium hexafluoride.**
Maia Avtandilashvili, *US Transuranium and Uranium Registries, USA*

9:40 **3A3 - A recycling model of the biokinetics of systemic tellurium.**
Augusto Giussani, *Federal Office for Radiation Protection, Germany*

10:05 a.m. – 10:35 a.m. **Open Discussion / Refreshments Available**

10:35 a.m. – 12:30 p.m. **Session 3B**

10:35 **3B1 - Comparison of Pu systemic distribution in rats and dogs.**
Dunstana R. Melo, *Lovelace Respiratory Research Institute, USA*

11:00 **3B2 - Whole body distribution of Pu in rats for different pathways of intakes.**
Melanie Doyle-Eisele, *Lovelace Respiratory Research Institute, USA*

11:20 **3B3 - Inhalation of nanoparticles: respiratory tract deposition and translocation to secondary organs in rats.**
Fabrice Petitot, *Institut de Radioprotection et de Sûreté Nucléaire, France*

11:45 **3B4 - Absorption of Am compounds in the respiratory tract.**
Eric Blanchardon, *Institut de Radioprotection et de Sûreté Nucléaire, France*

12:10 **3B5 - Whole body distribution of Am in rats for different pathways of intakes.**
Waylon Weber, *Lovelace Respiratory Research Institute, USA*

12:30 p.m. – 5:00 p.m. **Optional Lunch and Wine Tour**

6:00 p.m. – 10:00 p.m. **Banquet Dinner / Poster Awards**

Thursday, October 17, 2013

Medical Countermeasures and Decorporation

7:30 a.m. – 12:30 p.m. **Conference Desk Open**

8:00 a.m. – 8:50 a.m. **Plenary Session 4**

Emergency isotope detection methods using gamma cameras and conventional nuclear medicine clinic facilities.
Brian R. Moyer, *BRMoyer & Associates, LLC, USA*

8:50 a.m. – 10:05 a.m. **Session 4A**

8:50 **4A1 - Diagnosis and treatment of radionuclide internal contamination following fission product producing scenarios.**
Albert Wiley, *REAC/TS, Oak Ridge Associated Universities, USA*

Presentation Canceled 9:15 **4A2 - Radiation nuclear countermeasures program – NIAID and the strategic national stockpile.**
Carmen Rios, *National Institute of Allergy and Infectious Diseases, USA*

9:40 **4A3 - Pharmaceutical responses to CBRN accidents.**
Alexandra Leiterer, *Commissariat à l'Énergie Atomique, France*

10:05 a.m. – 10:35 a.m. **Open Discussion / Refreshments Available**

10:35 a.m. – 12:15 p.m. **Session 4B**

Presentation Canceled 10:35 **4B1 - A review study of chelation cases from Los Alamos National Laboratory.**
Luiz Bertelli, *Los Alamos National Laboratory, USA*

11:00 **4B2 - Modeling DTPA decorporation therapy.**
Augusto Giussani, *Federal Office for Radiation Protection, Germany*

11:25 **4B3 - Efficacy of a di-ethyl ester prodrug of DTPA as an orally bioavailable radionuclide decorporation agent.**
James E. Huckle, *University of North Carolina, USA*

11:50 **4B4 - A novel orally bioavailable DTPA tablet dosage form for radionuclide decorporation - product development studies.**
Gita Shankar, *SRI International, USA*

12:15 p.m. – 1:45 p.m. **Open Discussion / Working Lunch Available**

1:45 p.m. – 3:00 p.m.	**Session 4C**	
	1:45	**4C1 - Preclinical development of hydroxypyridinonate chelating agents: From solution thermodynamics to enhanced oral efficacy.** Rebecca J. Abergel, *Lawrence Berkeley National Laboratory, USA*
	2:10	**4C2 - Calixarene topical formulations for the treatment of skin and wound contaminations by uranium.** Guillaume Phan, *Institut de Radioprotection et de Sûreté Nucléaire, France*
	2:35	**4C3 – Actinide handling after wound entry with local or systemic decorporation therapy in the rat.** Nina M. Griffiths, *Commissariat à l'Énergie Atomique, France*
3:00 p.m. – 3:30 p.m.	**Open Discussion / Refreshments Available**	
3:30 p.m. – 4:30 p.m.	**Closing Remarks**	

Poster Sessions

Monday, October 14, 4:00 – 5:00 p.m.
Tuesday, October 15, 4:30 – 5:30 p.m.

Epidemiology, Biological Effects and Dose Assessment

PS1.1 Is Neurogenesis Altered After Chronic Internal Contamination of Uranium During Brain Development?
Céline Dinocourt, *Institut de Radioprotection et de Sûreté Nucléaire, France*

PS1.2 Neurotoxicological and Behavioral Effects of Postnatal Internal Radiation.
Daisy Lafuente, *University Rovira I Virgili, Spain*

PS1.3 Epidemiological Study Among French Uranium Processing Workers
Eric Samson, *Institut de Radioprotection et de Sûreté Nucléaire, France*

PS1.4 Correlation Between Calculated Doses Received at the Subcellular Level and Distribution of Biological Effects in Rat Kidney after Uranium Internal Contamination
Keodavanh Chounlamountry, *Institut de Radioprotection et de Sûreté Nucléaire, France*

PS1.5 Uncertainty Analysis on Lung Doses for US Nuclear Workers
Maia Avtandilashvili, *USTUR, Washington State University, USA*

PS1.6 Dose Assessment Experience at the Internal Dosimetry Laboratory from IFIN-HH Romania
Mirela A.Saizu, *Horia Hulubei National Institute for Physics and Nuclear Engineering, Romania*

PS1.7 Practical Recommendations to Occupational Health Departments of Nuclear Facilities for Monitoring of Internal Exposure to Radionuclides
Nicolas Blanchin, *Commissariat à l'Énergie Atomique, France*

PS1.8 The Role Played by PROCORAD in the Quality of Radiotoxicological Analysis
Robert Fottorino, *Commissariat à l'Énergie Atomique, France*

PS1.9 Improving the Internal Dose Estimation for Ingested Soil-Derived Uranium
Stephan Träber, *Helmholtz Zentrum München, Germany*

Biodosimetry, Molecular Biology, and Biochemistry

PS2.1 Differential Effects of Chronic Internal 137Cs Contamination on Early and Intermediate Stages of Atherosclerosis in ApoE-/- Mice
Clélia Le Gallic, *Institut de Radioprotection et de Sûreté Nucléaire, France*

PS2.2 Monitoring of Transfer Uranium Through Skin and Renal Cortex of Rats by SIMS Microscopy
David Suhard, *Institut de Radioprotection et de Sûreté Nucléaire, France*

PS2.3 Collective Dosimetry to Distinguish Occupational Exposure to Natural Uranium from Alimentary Uranium Background in Bioassay Measurements
Estelle Davesne, *Institut de Radioprotection et de Sûreté Nucléaire, France*

PS2.4 A Structural Study of Uranium (VI) and Thorium (IV) Complexed with Biomolecules of Interest
Gaëlle Creff, *Université Nice Sophia Antipolis, France*

PS2.5 In Vivo Exposure to Uranium Induces Irreversible Effects on Liver's Genes
Maamar Souidi, *Institut de Radioprotection et de Sûreté Nucléaire, France*

PS2.6 Effects of Depleted Uranium on Cholesterol and Acetylcholine Metabolisms on Two Alzheimer's Disease Models
Philippe Lestaevel, *Institut de Radioprotection et de Sûreté Nucléaire, France*

Biokinetics

PS3.1 Biokinetics and Dosimetry of ^{123}I-FP-CIT
Augusto Giussani, *Federal Office for Radiation Protection, Germany*

PS3.2 Gender Specific Biokinetic Models for Plutonium and Americium
Dunstana R. Melo, *Lovelace Respiratory Research Institute, USA*

PS3.3 Increased Renal Americium as Compared with Plutonium after Actinide Contamination by Inhalation or Wounding in the Rat
Nina M. Griffiths, *Commissariat à l'Énergie Atomique, France*

PS3.4 Sex Specific ^{238}Pu and ^{241}Am Biokinetics in Young Adult Swiss-Webster Mice
Dahlia An, *Lawrence Berkeley National Laboratory, USA*

Medical Countermeasures and Decorporation

P**S4.1 Synthesis of Novel Hexadentate Chelating Agent "$N_2S_2O_2/N_4O_2$" for Polonium Complexation**
Ali Younes, *SUBATECH, Ecole des Mines de Nantes, France*

PS4.2 Scientific Contribution to the French Regulatory Development of Prussian Blue
Isabelle Besse Bardot, *Direction des Approvisionnements en Produits de Santé des Armées, France*

PS4.3 Ex vivo and In Vivo Evaluation of the Efficiency of Calixarene Formulations for the Treatment of Superficial Wounds Contaminated by Uranium
Sophie Grivès, *Institut de Radioprotection et de Sûreté Nucléaire, France*

PS4.4 Sorption and Complexation of Chitosan with Selected Ln, An and Transition Metals
Vanessa E Holfeltz, *Oregon State University*

PS4.5 Enhanced Elimination of ^{238}Pu and ^{241}Am by 3,4,3-LI(1,2-HOPO) after Delayed Treatment in Swiss-Webster Mice
Jonathan Villalobos, *Lawrence Berkeley National Laboratory, USA*

PS4.6 Biodistribution and Oral Bioavailability of the Actinide Chelating Agent 3,4,3-LI(1,2-HOPO)
Taylor Choi, *Lawrence Berkeley National Laboratory, USA*

Invited Speaker Biographies

François Paquet, PhD
Institut de Radioprotection et de Sûreté Nucléaire, France

François Paquet is currently senior expert, coordinator of the research programs in radioprotection and coordinator of the expert panel at the French Institute for Radioprotection and Nuclear Safety (IRSN). He is also Professor at the University of Paris, Chairman of the Task Group (TG) on Internal Dosimetry at the International Commission on Radiological Protection (ICRP) and Chairman of the Expert Committee on Occupational Exposure Limits for chemicals at the French Health Agency (ANSES).

After a PhD thesis on the biokinetics of Americium-241 in lobsters, François Paquet was recruited in 1992 by the French Atomic Energy Commission (CEA) to work on the biokinetics, decorporation and speciation of radionuclides in rodents and primates. He was then hired by IRSN in 1995 and continued to develop these activities. In 1997, he spent one year at the Lovelace Respiratory Research Institute (New Mexico, USA) to carry out experiments on decorporation and speciation of actinides in primates. When he returned to France, he took the head of the Laboratory of Experimental Radiotoxicology and launched the ENVIROM program, dedicated to the health effects resulting from chronic intakes of radionuclides. At the same time, he was designated coordinator of the European research program "Biokinetics and Dosimetry" (BIODOS) within the 5th PCRD and started to participate in international TGs on expertise for the ICRP and the OECD/NEA. He left the laboratory in 2007 to join the Scientific Direction of IRSN and is now in charge of the coordination of the research programs in radioprotection. In addition, he was appointed professor at the university, chairman of INDOS and ANSES expert groups, he was (or still is) member of the EGIS group (OECD), scientific secretary of the HAT TG (ICRP), member of the board of EULEP (CEC), member of the ICRP committee 2, member of the TG "Radiation Weighting factors for biota" and member of the TG "Cancer risk from alpha emitters". François Paquet is author or co-author of 110 peer-reviewed publications and 15 book chapters.

Eric Quéméneur, PharmD, PhD, HDR
Commissariat à l'Énergie Atomique, France

Eric Quéméneur is the scientific director of the Life Sciences Division at CEA, France. His personal background relates to biotechnologies, protein engineering and toxicology.

Eric started working for BioMérieux and CNRS in Lyon, France, for Hoechst A.G. in Frankfurt, Germany, and Pasteur Institute in Dakar, Senegal. He then joined the CEA Saclay in 1991 to participate in the Protein-2000 initiative. His team developed the applications of protein folding catalysts, protein manufacturing, and protease engineering. Twelve years ago, he moved to CEA Marcoule to launch a novel research unit that specialized in "nuclear toxicology". There, his research focused on the biochemical toxicology of several radionuclides (actinides, iodine, cobalt, and tritium), on the stability of biopharmaceuticals, and on the detection of biological threats. From 2009 to 2013, he was in charge of coordinating the large national multidisciplinary program in toxicology at CEA. Overall, Eric has authored about 80 research papers and has directly supervised about 20 national or European projects. He has also been active in biotech companies, particularly Medicago Inc., Bertin Pharma, and Theranexus, for which he still acts as a regular advisor.

Eric joined the managing board of the Life Sciences Division in Fontenay-aux-roses in 2010. Biological research at CEA ranges from nuclear medicine to gene therapies, and from structural biology to omics technologies. As the Director in charge of programs and valorization, he is now coordinating the global activities of about 1,500 collaborators, spread out over 8 research institutes and 12 locations, who are also involved in several national infrastructures and collaborate with both public and industrial partners.

Raymond A. Guilmette, PhD
Lovelace Respiratory Research Institute, USA

Ray Guilmette received a B.S. in nuclear engineering from Rensselaer Polytechnic Institute, a M.S. in environmental health sciences from New York University, and a Ph.D. in radiological health from NYU. For almost 40 years, he has been studying the metabolism, biokinetics, dosimetry, and biological effects of internally deposited radionuclides; developing methods for removing radionuclides from the body (decorporation); and studying the mechanisms of deposition, clearance and retention of inhaled materials. Most of this research was performed at the Lovelace Respiratory Research Institute (LRRI; formerly the Inhalation Toxicology Research Institute), where he worked for 23 years. From 2000 through 2007, he was team leader for internal dosimetry at the Los Alamos National Laboratory, monitoring more than 800 workers at risk of plutonium exposure and assessing radiation doses for workers who were exposed to radionuclides associated with the nuclear weapons industry. In 2007, he returned to LRRI as Director of the Center for Countermeasures Against Radiation, where he is evaluating the efficacy of chemical compounds designed to decorporate radionuclides as well as drugs designed to ameliorate the effects of acute radiation syndrome from large external radiation doses. These studies involve the use of both small and large animal models. He is a past president of the Health Physics Society, and received their Distinguished Scientific Achievement Award in 2002. He has also given several honorary lectures (Newell Stannard Memorial Lecture, 2006; G. William Morgan Lecture, HPS, 2009; inaugural Patricia W. Durbin Memorial Lecture, Lawrence Berkeley National Laboratory, 2010). He is or has been a member of scientific committees of the International Commission on Radiological Protection, the National Council on Radiation Protection (also a Board Member), the International Agency for Research on Cancer, the U. S. Environmental Protection Agency, and the U. S. National Academies of Science.

Ronald G. Manning, PhD
Biomedical Advanced Research and Development Authority, USA

Ron Manning, Ph.D., is a Project Officer and Branch Chief, Chemical, Radiological and Nuclear (CRN) Medical Countermeasures, in the CBRN Division at the Biomedical Advanced Research and Development Authority. He is responsible for the development and management of a portfolio of projects that result in the development of medical countermeasures against CRN threats.

Dr. Manning previously worked for the United States Pharmacopeia from 2000-2007, where he was Vice President responsible for scientific outreach, monograph and reference standard development, and reference standards operations. Before that, Ron was employed by the National Institutes of Health as a Scientific Review Administrator and Referral Officer, was tenured faculty from 1988-1997 in the Department of Radiology at the Vanderbilt University School of Medicine, served as an Associate Director of Research in the Medical Products Group at Mallinckrodt Inc. in St. Louis, was a Supervisory Chemist and Director of the Positron Emission Tomography Facility in the Nuclear Medicine Department at the National Institutes of Health, and was a Supervisory Chemist at Stanford Research Institute.

Dr. Manning has also served as a scientific expert on National Institutes of Health grant review committees, is a past president of the Chemical Reference Materials Manufacturers Association, and was a Special Government Employee, advising the Food and Drug Administration, Center for Drug Evaluation and Research in the general area of chemistry, manufacturing and control of nuclear medicine pharmaceuticals.

Dr. Manning received his B.S. and Ph.D. degrees in chemistry from the University of California. He was a National Research Council Postdoctoral Fellow at the National Institute of Standards and Technology from 1975-77. He is the author or co-author of more than 60 publications, numerous abstracts, and several technical reports and patents.

Presentation Canceled

Albert L. Wiley, Jr., BNE, MD, PhD
Oak Ridge Associated Universities, USA

"Al" Wiley, BNE, MD, PhD is Medical and Technical Director of REAC/TS and of Radiation Emergency Medicine, National Security and Emergency Management Program at Oak Ridge Associated Universities. He has overall responsibility for radiation medicine and emergency response, continuing medical education courses and research conducted by the Radiation Emergency Assistance Center/Training Site (REAC/TS). REAC/TS is a National Nuclear Security Administration (DOE) facility managed by ORISE/ORAU. He is also head of the World Health Organization Collaborating Center at Oak Ridge and is the REAC/TS liaison to the IAEA Radiation Assistance Network (RANET).

Prior to joining REAC/TS, Wiley was a professor of radiation oncology at University of Wisconsin –Madison and then East Carolina University, where he served as interim director of the East Carolina Cancer Center and as adjunct professor in the university's department of physics. Previously, he spent more than 20 years serving as professor of radiology and human oncology on the medical faculty at the University of Wisconsin, and currently is an Emeritus Professor of Human Oncology at the University of Wisconsin-Madison. He has served as visiting professor at the University of Helsinki and other universities in Sweden and Norway as well as University of Texas MD Anderson Cancer Center. He also had served as the medical director of the U.S. Navy Radiological Defense Lab in San Francisco, Calif., as senior medical officer for the major navy radiation incident response team, and as medical instructor at the Navy NWTC-Pacific, NAS, Coronado, Ca. He is a member of the U.S. Navy Retired Reserve.

He was recently selected as a member of the UN UNSCEAR Committee on Evaluation of Radiation Dose and Health Effects on Fukushima Workers, on multiple IAEA committees and with NASA projects involving Pu-238 RTG launches (i.e., Pluto and Mars Science Lab launches). He has also served nationally and internationally as a consultant and United States medical representative to the International Atomic Energy Agency. Other past deployments and consultant services were to the Nuclear Regulatory Commission, the Department of State, the Chernobyl Nuclear Power Plant, U.S. Department of Veterans Affairs, the Department of Health and Human Services, IAEA, and the World Health Organization. He has also served on the Wisconsin Radioactive Waste Review Board and the Wisconsin Governor's Council on Biotechnology.

Wiley is board certified by the American Board of Radiology, the American Board of Nuclear Medicine, the American Board of Medical Physics (Medical Health Physics) and the American Board of Science in Nuclear Medicine. He has also been selected as Fellow of the American College of Radiology, the American College of Nuclear Medicine, and the American College of Therapeutic Radiation Oncologists. He earned his medical degree from the University of Rochester School of Medicine, a doctorate in radiological sciences (major, radiobiology and minor in nuclear engineering) from the University of Wisconsin-Madison, and a bachelor's degree (and a year of AEC graduate studies in nuclear engineering) from North Carolina State University. His internship was in surgery/medicine at University of Virginia, and his residency training was at Stanford University and University of Wisconsin Hospitals.

Irina Guseva Canu, PhD
Institut de Veille Sanitaire, France

Dr. Irina Guseva Canu is a senior epidemiologist at the French Institute for Public Health Surveillance (IVS) and a scientific expert at the French Agency for Food, Environmental and Occupational Health & Safety and at the Observatory for Micro and NanoTechnologies.

She received her medical education from the Tashkent Medical Institute (Uzbekistan) before joining the French Institute of Radioprotection and Nuclear Safety (IRSN) in 2004. During her eight-year service at the IRSN she has studied cancer risk following occupational exposure to ionizing radiation and worked on different topics including retrospective exposure assessment methods, multi-exposures and internal contamination issues in the nuclear industry in France. In 2008 she defended her Ph.D. work in Epidemiology and Public Health on the health effects of chronic uranium internal exposure in nuclear workers. She has since been involved in national and international research projects and task groups (e.g., EU-FP6 Alpha-risk and EU-FP7 DoReMi-Low Dose Research towards Multidisciplinary Integration). At the IVS she leads the EpiNano project aimed at creating an exposure registry and a prospective cohort of workers exposed to engineered nanomaterials.

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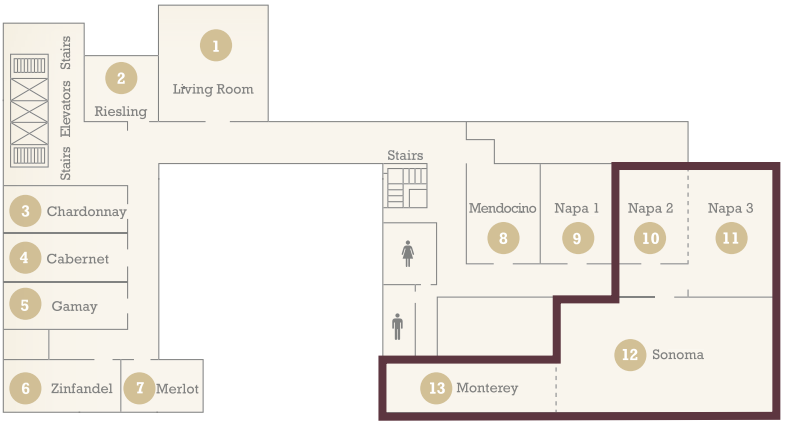
Notes

Notes

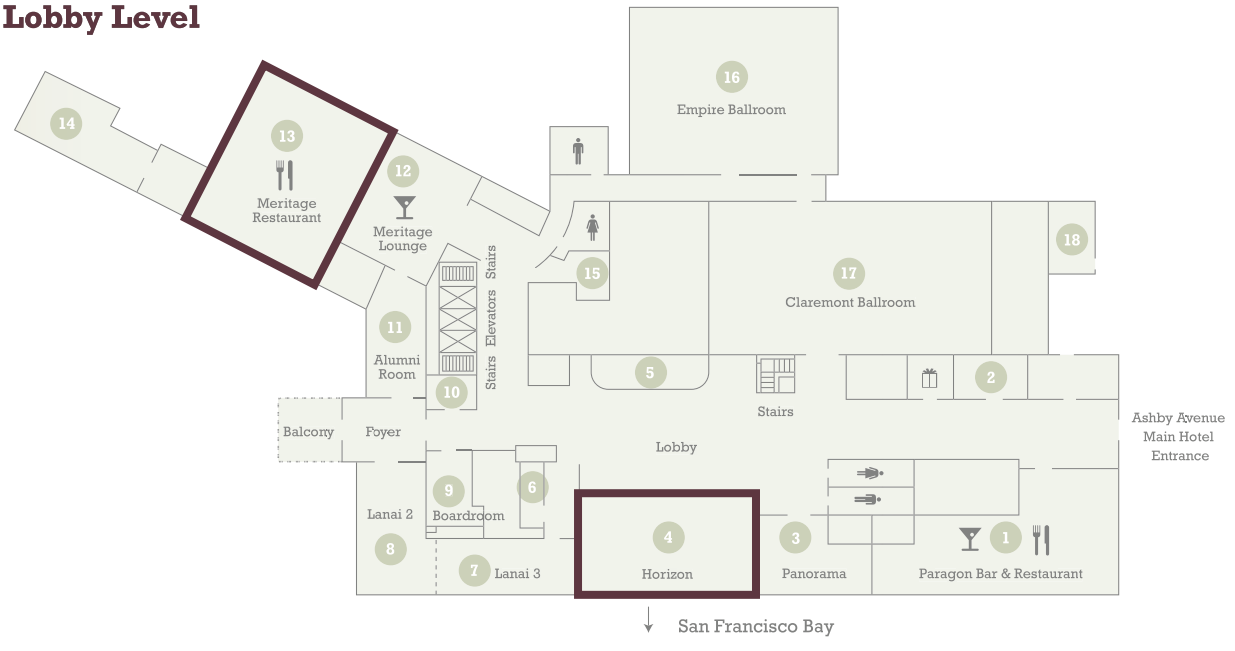
Mezzanine



1. Living Room
2. Riesling
3. Chardonnay
4. Cabernet
5. Gamay
6. Zinfandel
7. Merlot
8. Mendocino
9. Napa 1
10. Napa 2
11. Napa 3
12. Sonoma
13. Monterey

Conference Rooms

Lobby Level



1. Paragon Bar & Restaurant
2. Gift Shops
3. Panorama
4. Horizon
5. Front Desk/Concierge
6. Bell Desk
7. Lanai 3
8. Lanai 2
9. Boardroom

Banquet Dinner

10. Alumni Office
11. Alumni Room
12. Meritage Lounge
13. Meritage Restaurant
14. Meritage Private Dining
15. Business Center/ATM
16. Empire Ballroom
17. Claremont Ballroom
18. Human Resources

Lunch

Spa Level

(Below Lobby Level – Not Shown)

- *Spa Claremont*
- *Spa Retail*
- *Spa Wing Guestrooms*

Garden Level

(Below Spa Level – Not Shown)

- *Salon*
- *Sales & Catering*
- *Carriage Door Entrance*
- *Access to:*
  - *The Club*
  - *Pool Arbor*
  - *Bayview Café*